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Happy Marriage, Happy Life? Marital Quality and Subjective Well-being in Later Life

The authors examined associations between marital quality and both general life satisfaction and experienced (momentary) well-being among older husbands and wives, the relative importance of own versus spouse's marital appraisals for well-being, and the extent to which the association between own marital appraisals and well-being is moderated by spouse's appraisals. Data are from the 2009 Disability and Use of Time daily diary supplement to the Panel Study of Income Dynamics (N = 722). One's own marital satisfaction is a sizable and significant correlate of life satisfaction and momentary happiness; associations do not differ significantly by gender. The authors did not find a significant association between

spouse's marital appraisals and own well-being. However, the association between husband's marital quality and life satisfaction is buoyed when his wife also reports a happy marriage, yet flattened when his wife reports low marital quality. Implications for understanding marital dynamics and well-being in later life are discussed.

The protective effects of marriage for physical and emotional well-being are widely documented (Carr & Springer, 2010). However, recent research shows that these effects are conditional upon the quality of the marriage; problematic marriages take an emotional toll, whereas high-quality marriages provide benefits, especially for women (Proulx, Helms, & Buehler, 2007) and older adults (Umberson, Williams, Powers, Liu, & Needham, 2006). Although the positive association between marital quality and well-being is well established, several important issues remain unexplored. First, most such studies have focused on negative aspects of psychological functioning, especially depressive symptoms (Bookwala, 2012). Studies that have focused on positive aspects of well-being typically have used decontextualized and general life satisfaction measures (Whisman, Uebelacker, Tolejko, Chatav, & Meckelvie, 2006) rather than

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momentary measures of positive mood that may be less susceptible to response bias.

Second, most studies have focused on only one spouse's marital appraisals and have not considered that both own and spouse's appraisals may contribute independently to well-being (i.e., actor vs. partner effects; Cook & Kenney, 2005). Although mounting research suggests that one spouse's marital (dis)satisfaction may affect the other partner's well-being, such studies typically have focused on young or midlife persons (Beach, Katz, Kim, & Brody, 2003; Whisman, Uebelacker, & Weinstock, 2004). Third, we know of no studies that have explored the combined influences of both partners' marital appraisals on well-being. Older spouses' marital appraisals are correlated only modestly ($r < .50$ in the present study; see also Bulanda, 2011; Carr & Boerner, 2009; Cohen, Geron, & Farchi, 2009); thus, it is plausible that spouses' appraisals as well as convergences (or divergences) therein may have independent associations with well-being. The protective effects of marital satisfaction on emotional well-being may be amplified when one's spouse also is satisfied with the marriage, whereas the association may be dampened or even reversed when one's partner is dissatisfied. An exploration of the multiplicative influences of "his" and "her" marital assessments on one's well-being will shed light on complex associations between marital dynamics and emotional well-being in later life.

Thus, in this study we explored the distinctive ways that both own and spouse's marital quality appraisals are associated with two aspects of older adults' subjective well-being: (a) evaluations of one's life in general (i.e., global life satisfaction) and (b) how one experiences life moment to moment (i.e., happiness during randomly sampled activities on the day prior to interview). Data were from the 2009 Disability and Use of Time (DUST) supplement to the Panel Study of Income Dynamics, which includes 24-hour time diaries capturing activities and emotions experienced on the previous day. Using these data obtained from older married couples, we explored the following four areas: (a) associations between marital quality and well-being for husbands and wives; (b) differences in how own ("actor") and spouse's ("partner") marital appraisals are associated with well-being; (c) the extent to which associations between marital quality

appraisals and well-being persist net of demographic, health, socioeconomic status, and characteristics of the target day (e.g., day of week, activity); and (d) the extent to which the associations between one's own marital appraisals and well-being are moderated by a spouse's appraisals.

Understanding later life marriage is an important pursuit given current demographic trends. The proportion of adults age 65 and older is projected to increase, from 13% in 2010 to nearly 20% in 2030 (Federal Inter-agency Forum on Aging-Related Statistics, 2012). Marital quality has far-reaching implications for the health and well-being of older adults; it is a well-documented buffer against the health-depleting effects of later life stressors such as caregiving (Bookwala, 2012) and is a critical resource as couples manage difficult decisions regarding their end-of-life health care (Carr, Boerner, & Moorman, 2013).

BACKGROUND

Marital Quality and Subjective Well-being Among Older Adults

Marital quality is positively associated with subjective well-being, and this association is typically stronger among women than men (Bookwala, 2012; Jackson, Miller, Oka, & Henry, 2014; Proulx et al., 2007; Whisman, 2001). However, most studies have examined newlyweds, young couples, or those with children living in the home (Bookwala, 2012; Whisman, 2001). Therefore, the strong association between marital quality and well-being among women relative to men may reflect distinctive aspects of marital roles and relations in young and mid-adulthood. Feminist writings dating back to Jesse Bernard (1972) suggest that marriage and intimate relationships are more central to women's identities and more consequential for their overall well-being relative to men because women typically "specialize" in emotion work and nurturing roles such as that of spouse or parent, whereas their husbands specialize in paid employment outside the home (Loscocco & Walzer, 2013). Women may feel responsible for resolving marital problems and ensuring that the couple maintains a good marriage for the sake of the children (Beach et al., 2003; Davila, Karney, Hall, & Bradbury,

2003; Dehle & Weiss, 1998). Some scholars argue further that women traditionally have had less power and status in marriage than men and thus have a greater emotional investment in maintaining a healthy relationship (Bulanda, 2011).

Among older adults, the gendered roles and relations established earlier in the life course may shift or converge, creating a context in which the association between marital satisfaction and well-being is similar for husbands and wives. First, as spouses age, their social networks beyond the marital dyad may change such that marriage becomes an equally salient source of well-being for both men and women. As they age, older men (and women, to a lesser extent) exit full-time employment, reduce social contact with former colleagues, and increase interactions with their spouse (Kulik, 2002). Contact with friends and siblings also may decline as some die, whereas others may experience health declines or caregiving duties that limit their social engagement (Dykstra & Gierveld, 2004). Social networks also may contract because of conscious efforts on the part of older adults. As older adults' future time horizons become more limited, they may consciously limit their social networks and focus on a small subset of their closest relationships (Carstensen, 1991). As such, close ties with a spouse may be particularly salient to both older husbands' and wives' overall well-being (Lang, 2001).

Second, developmental and role changes over the life course may contribute to a convergence in the salience of marital quality for husbands' and wives' well-being. Theoretical writings propose that a gendered "role crossover" occurs at midlife and later, whereby men become more oriented toward family and affiliation and less oriented toward power and agency, especially after retiring and leaving full-time employment. Older women, by contrast, may place an increased emphasis on agency and self-fulfillment, and their identities and well-being become less closely tied to their relationships with others (Loscocco & Walzer, 2013). Thus, the relative importance of agency versus affiliation for men and women may converge in later life.

These psychological shifts are closely tied to shifts in social roles; when older men are retired and women's daily care of dependent children has subsided, spouses typically

experience greater role equity (Hagedoorn et al., 2006; Kulik, 2002). Whereas in younger couples wives may take responsibility for and solve marital problems, as long-term marriages persist men may "catch up" and may feel equally responsible for and become equally invested in the marital relationship, especially as paid work obligations absorb less of their time (Beach et al., 2003). Consistent with the assumption that the importance of marriage to husbands' and wives' overall well-being may converge in later life, several small, nonrepresentative studies of married older adults in the United States have found no gender differences in the association between marital quality and well-being (Quirouette & Pushkar-Gold, 1992; Whisman et al., 2006). Our first aim was to assess gender-specific associations between marital quality and well-being among a nationally representative sample of older spouses; we expected that the magnitude and direction of these associations would be similar for men and women.

Marital Quality and Global Versus Experienced Subjective Well-being

Most research on the association between marital quality and subjective well-being has focused on negative outcomes, typically, depressive symptoms (Bookwala, 2012; Fincham, Beach, Harold, & Osborne, 1997; Whisman et al., 2004). Ryff and Singer (1998) argued for the value of focusing on positive outcomes also. Older persons who score very low on indicators of positive psychological functioning, such as life satisfaction or happiness, may be at an elevated risk of major depression if confronted with additional life stressors. By contrast, emotional well-being is a resource on which older adults may draw as they cope with aging-related stressors, including physical declines, sensory impairment, and caregiving challenges (Bookwala, 2012). Finally, older adults are believed to have a cognitive bias whereby they attend to positive and avoid or understate negative experiences, sentiments, and recollections (Charles, Mather, & Carstensen, 2003). Therefore, indicators of positive aspects of well-being may offer a more accurate portrayal of older adults' overall psychological health.

An increasing amount of research is exploring associations between marital quality and

positive psychological outcomes, yet most studies thus far have focused on general indicators such as global life satisfaction (Cohen et al., 2009; Glenn & Weaver, 1981). Scholars of subjective well-being have called for heightened attention to an alternative measure: *experienced well-being*, or the moment-to-moment reports of how one is feeling (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006). Some researchers consider these measures an improvement over global, decontextualized measures such as life satisfaction, which may be influenced by errors in recollection, recall bias, and other cognitive processing bias errors (Schwarz & Strack, 1999).

Thus, we focused on both global and momentary measures of well-being. Global life satisfaction is a relatively stable orientation and is not affected by transient mood. It captures how people evaluate their lives relative to some standard, such as their expectation for how life should be (Schwarz & Strack, 1999). By contrast, momentary measures of experienced well-being are assessments of lives as individuals live them. The two measures are highly correlated, yet life satisfaction is more responsive to enduring markers of success (e.g., education), whereas experienced well-being is more responsive to contemporaneous activities and immediate circumstances (Kahneman et al., 2006). It is plausible that each could relate differently to marital quality (George, 2010); for example, frequent arguments with one's spouse or a spouse's urgings to take one's medications might cause a momentary spike in unhappiness but may also provide a feeling of being cared for, which may enhance one's overall satisfaction. We evaluated the associations between men's and women's marital quality and two aspects of well-being: (a) life satisfaction and (b) momentary happiness.

His and Her Marital Quality Appraisals: Evaluating Actor and Partner Effects

To date, most studies of the implications of later life marriage have focused on one individual within the marital dyad, "despite the importance of relationship interdependencies . . . to the study of aging" (Windsor, Ryan, & Smith, 2009, p. 586). This limitation is due in part to traditional models of data collection in which one person answers survey questions on his or her perceived relationship quality and well-being

(Carr & Springer, 2010). However, husbands and wives do not necessarily view their marriages in similar ways; marital quality assessments are typically correlated only modestly ($r < .50$), even in long-term relationships (Bulanda, 2011; Carr & Boerner, 2009; Cohen et al., 2009). As a consequence, few studies have investigated whether older adults' subjective well-being is a function of one's own marital appraisals, one's spouse's appraisal, or a product of the two.

Over the past decade, studies have begun to explore *actor-partner* effects, or the extent to which one individual's experiences or traits affect other members of one's social network (Cook & Kenny, 2005). For example, if one partner is dissatisfied with the marriage, he or she could act negatively toward the spouse by criticizing or withdrawing affection. Conversely, happily married persons may be motivated to provide support and encouragement to their partner, thereby enhancing their partner's happiness and well-being. Thus, one partner's marital (dis)satisfaction may be linked to the emotional well-being of the other.

To date, studies of the marital dyad have yielded inconclusive findings. Several have found that a spouse's physical and emotional health are strongly associated with one's own well-being (see Bookwala, 2012, for a review), yet comparable patterns have not been detected with regard to marital quality and well-being. A study of married parents of teenage children found that one partner's marital appraisals affected the other spouse's depressive symptoms (Beach et al., 2003), and a study of newlywed couples found no evidence of partner effects (Fincham et al., 1997). These results suggest that partner effects may become evident only in longer term marriages, in which the partners are knowledgeable about and sensitive to fluctuations in one another's attitudes and feelings. To evaluate whether partner effects are evident in long-term marriages among older adults, we took advantage of the couple-based design of the Disability and Use of Time (DUST) daily diary supplement (Freedman & Cornman, 2012) to the Panel Study of Income Dynamics (PSID; Hill, 1992) and evaluated whether spousal marital appraisals are associated with one's subjective well-being independent of one's own marital appraisals.

The Multiplicative Effects of His and Her Appraisals

Although subjective well-being may respond directly and independently to a spouse's marital happiness, a straightforward assessment of actor and partner effects does not necessarily capture the complex interactions between the two. A mounting body of research, typically laboratory based studies, documents the processes through which husbands and wives independently respond to conflicts or joys in marriage and the reactions that one partner's response elicits from the other. These dynamic processes of action and reaction may have powerful implications for overall well-being. For example, studies of dyadic coping and communication reveal the varied ways that couples, especially older couples managing health problems, might navigate such challenges (Holley, Haase, & Levenson, 2013; Revenson, Kayser, & Bodenmann, 2005). Such examples provide a foundation for investigating statistical interactions between own and spouse's marital appraisals and their associations with married persons' overall well-being.

We know of no studies that have explored interactive effects of own and spouse's marital appraisals on one's own well-being. However, we speculate that the protective effects of one's own marital satisfaction may be buoyed by a spouse's positive marital appraisal, whereas the harmful effects of one's own negative appraisal may be amplified when one's spouse also offers a negative appraisal. We expected to find stronger evidence of moderation effects among husbands than wives, given well-documented gender differences in marital interactions, whereby women play a more active role in communicating, instigating change in a partner's behavior, and conveying concerns about the marital relationship (Bloch, Haase, & Levenson, 2014). By contrast, men tend to take a more passive or silent approach to addressing marital issues, and therefore their feelings toward the marriage may not necessarily be transmitted to their spouse and may not interact with their wives' marital assessments to affect wives' overall well-being (Heavey, Layne, & Christensen, 1993). Given this, women's marital interactions may elicit a stronger reaction from their husbands than vice versa, carrying consequences for husbands' well-being. To address these questions, we evaluated two-way interaction terms

of each partner's appraisal on one's subjective well-being.

Other Influences on Marital Quality and Well-being

We evaluated the extent to which associations between marital quality and well-being persist when we controlled for potential demographic and socioeconomic confounds, including age (Mroczek & Spiro, 2005; Proulx et al., 2007), race (Broman, 2005; Krause, 1993), own and spouse's physical health (Butterworth & Rodgers, 2006; Kaufman & Taniguchi, 2006), socioeconomic status (White & Rogers, 2000), marital duration (Umberson et al., 2006), whether one is in a first or higher order marriage (Barrett, 2000; Mirecki, Chou, Elliott, & Schneider, 2013), and parental status (Umberson, Pudrovska, & Reczek, 2010). We also controlled for characteristics of the specific activities to which one was referring when describing one's mood on the study day.

METHOD

Data

Our analyses are based on data from the DUST supplement to the 2009 PSID, a national panel study of a representative sample of families in the United States. The original 1968 PSID sample included 18,000 individuals in approximately 5,000 families. All respondents from the original sample and anyone born to or adopted by one of these families have been followed in the study. The PSID sample is a self-sustaining one; it increases as children leave their parents' households and form new households. Adult children are then tracked by the study investigators; the design produces a nationally representative cross section of families each year (McGonagle & Schoeni, 2006). Interviews were conducted annually between 1968 and 1997 and biennially thereafter. Reinterview rates for original sample members have been consistently 98% per year (96% over 2 years), and the sample of families now exceeds 8,000. In 2009, the response rate for the PSID (including new split-off households) was 94.3%.

DUST sampled couples in the 2009 PSID in which both spouses were at least 50 years old and at least one spouse was at least 60 years old as of December 31, 2008. The vast majority of

married persons in the PSID age 60 and older have spouses who are age 50 and older; however, the sample does not represent the small fraction (~5%) of couples in which one spouse is 60 or older and the other under 50. To enhance opportunities for studying disability, couples in which one or both spouses reported a health limitation during the 2009 core interview were oversampled, and strata were further divided by the husband's age (<70, 70+).

The DUST instrument, which was administered by telephone within a few months after the 2009 core PSID interview, was designed as a 30- to 40-minute diary. DUST was paired during the first of two interviews with a 15- to 20-minute supplemental questionnaire that included global well-being, functioning, marital quality, and stylized time use questions. To obtain a balanced sample of days, couples were systematically assigned interview days that would yield one weekday and one weekend day diary; thus, up to four daily diaries could be completed per couple. Husbands and wives were interviewed separately but on the same date. The diary asked about all activities on the previous day, beginning at 4:00 a.m. and continuing until 4:00 a.m. the day of the interview. Respondents also were asked detailed questions about how they felt while doing up to three randomly selected activities (for details, see Freedman & Cornman, 2012); this approach is based on the validated Day Reconstruction Method developed to measure momentary well-being (Kahneman et al., 2006). DUST assessed momentary well-being for up to three activities to minimize subject fatigue and boredom; this sampling procedure is consistent with those of other national daily diary studies (Iida, Shrout, Laurenceau, & Bolger, 2012). Comparisons of momentary measures collected through a 24-hour diary format with real-time experience sampling methods suggest very good agreement (Dockray et al., 2010).

Of the 543 eligible couples sampled for DUST, at least one diary was completed for 394 couples, yielding a response rate of 73%. About 4% of respondents ($n = 33$) had a spouse who could not participate because of a permanent health condition (e.g., memory loss). For these couples, diaries were collected from the spouse without a health condition. Because analyses focus on own and spouse's reports of marital quality, our analytic sample was limited to couples for whom we had both spouses'

reports of marital quality ($n = 361$). For analyses assessing momentary mood, we had 720 paired husband-wife diary days and 1,920 paired activities.

Dependent Variables

Subjective well-being. *Global satisfaction* is assessed with the question, "Taking all things together, how satisfied are you with your life these days?" Response categories range from 0 (*not at all*) to 6 (*very*). This single item was administered at the beginning and end of the interview, yielding a correlation of .65. This is consistent with other studies detecting 1-hour test-retest reliabilities of .40 to .66 and same day test-retest reliabilities of .50 to .55 (Krueger & Schkade, 2008). In the analyses presented here, we used the evaluation provided at the beginning of the interview in order to avoid potential priming effects as a result of the interview content (Strack, 1992). *Momentary well-being* refers to how happy a respondent was while doing reported activities on the study day. For the randomly selected activities from each diary, respondents reported how happy they were on a scale that ranged from 0 (*not at all happy*) to 6 (*very happy*).

Independent Variables

Marital quality. Marital quality is derived from a subset of six items drawn from a standardized instrument reflecting both marital strain and support (Whalen & Lachman, 2000). Respondents indicated how much you can open up to your spouse if you need talk about your worries; whether your spouse appreciates you; whether your spouse argues with you (reverse coded); whether your spouse understands the way you feel about things; whether your spouse makes you feel tense (reverse coded); and whether your spouse gets on your nerves (reverse coded). Response categories range from 1 (*not at all*) to 4 (*a lot*). Responses are averaged so that higher values reflect more positive assessments. A confirmatory factor analysis showed that the six items form a single factor, with all loadings 0.53 or higher and a Cronbach's alpha of .78. We also calculated two 3-item scales capturing positive ($\alpha = .71$) and negative interactions ($\alpha = .71$). Preliminary regression analyses revealed similar associations between own marital quality and well-being regardless

of the scale used, and models using the six-item scale had superior model fit. Thus, we use the single six-item scale in all analyses.

Control variables. All models were adjusted for selected respondent, spouse, and couple characteristics that may potentially confound the statistical association between marital quality and well-being. Respondent and spouse characteristics include age, self-rated health, and disability. *Age categories* are 50–69 (reference category), 70–79, and 80+ for men, and 50–59 (reference category), 60–69, and 70+ for women. The different cutpoints for husbands and wives reflect the fact that at least one member of the dyad had to be age 60 or older for study inclusion, and men tend to marry women younger than themselves. These categories also reflect the low number of men under age 60 and women over age 80 in the sample. We use categorical rather than continuous measures because the association between age and well-being is not linear; the association is positive between ages 60 and 75 and reverses thereafter (Frijters & Beaton, 2012).

Order of marriage refers to whether one is in a remarriage; first marriage is the reference group. We also controlled for whether a respondent *has any children* (1 = yes, 0 = no). *Self-rated health* refers to whether one rates his or her own health as “excellent,” “very good,” “good,” “fair,” or “poor”; higher scores reflect poorer health. The five-level ordinal measure is preferable to a dichotomous indicator (e.g., poor/fair vs. other) because the latter conceals important gradations in later life health (Finns, Nyqvist, & Saarela, 2008). *Disability* refers to whether one has “serious difficulty” with hearing; seeing when wearing glasses; concentrating, remembering or making decisions because of a physical, mental, or emotional condition; walking or climbing stairs; difficulty dressing or bathing; or doing errands alone, such as visiting a doctor’s office or shopping because of a physical, mental, or emotional condition. This measure was developed for the American Community Survey (Weathers, 2005). Couple characteristics are *total household income for 2008* (in quartiles), *total wealth for 2008* (in quartiles), and *marital duration* (in years).

For analyses predicting momentary happiness during daily activities, we also controlled for whether the activity was performed *on a weekend* (vs. weekday), *at home* (vs. elsewhere), *with the spouse* (vs. alone or with

someone else), and which of 17 different activity categories best captures the *nature of the randomly selected activity*. Because the activity categories are mutually exclusive, we used traveling as the comparison group. A major strength of diary data is their detailed information on what people are doing when their momentary mood is assessed. In preliminary analyses, we contrasted regression models using the full set of 17 activities indicators versus aggregated categories to predict well-being. The distinctive effects of the 17 categories in our sex-specific models suggested that we would need to create different aggregated categories for each gender, and we wanted to keep the sex-specific models identical.

PSID has very low levels of missing data; across all the variables in the life satisfaction models, 21 (2.9%) or fewer cases were missing data on any one variable. For the additional variables that appear only in the happiness models, at most 24 (0.6%) activities have missing data on any one variable. All variables except one (education) have less than 1.5% missing data; we recoded the missing data to the modal category of the variable. Education had missing data for 2.9% of cases; thus we imputed the age-sex specific mode. Given the extremely low level of missing data (and hence likely trivial impact on variance estimates), we opted for mean imputation rather than more complex multiple-imputation techniques.

Analytic Plan

We first present weighted descriptive statistics for husbands and wives (see Table 1; see below for a description of sampling weights). Next, we examine the unadjusted associations between both own and spouse’s marital quality appraisals and well-being (see Table 2). We then evaluate the extent to which these unadjusted associations persist net of all control variables (see Table 3). Finally, we estimate models that include an interaction term between husband and wife marital assessments (see Table 4). All analyses were performed in Stata 11.1.

Associations were assessed using actor-partner interdependence models (APIM; Cook & Kenny, 2005), estimated using seemingly unrelated regression. In actor-partner interdependence models the effect of the respondent’s own characteristics are referred to as *actor effects* and the effect of the spouse’s characteristics are labeled *partner effects*. This approach

Table 1. *Weighted Means (and Standard Deviations, in Parentheses) or Percentages for All Variables Used in the Analysis for Husbands and Wives in the Disability and Use of Time Supplement to the Panel Study of Income Dynamics*

Variables	Husbands (n = 361)	Wives (n = 361)	p
Life satisfaction (range: 0–6)	5.0 (1.00)	5.0 (1.07)	.718
Momentary happiness during activities yesterday (range: 0–6)	5.1 (1.19)	4.9 (1.18)	.090
Marital quality (range: 1–4)	3.3 (0.53)	3.1 (0.57)	< .001
Actor/partner characteristics			
Age			< .001
50–69	58.6		
50–59		17.9	
60–69		52.7	
70–79	27.3		
70+		29.4	
80+	14.1		
Completed education (in years)	13.9 (2.72)	13.3 (2.35)	< .001
Race (1 = Black, 0 = non-Black)	2.9	2.6	.325
Second or higher order marriage (1 = yes)	27.9	28.5	.628
Has any children (1 = yes)	85.5	88.7	.145
Has a disability (1 = yes)	44.3	36.1	.087
Self-rated health (1 = excellent to 5 = poor)	2.6 (1.13)	2.7 (1.08)	.069
Couple characteristics (n = 361 couples)			
Income quartile, 2008			
0 to 25th percentile		21.3	
25th to 50th percentile		21.0	
50th to 75th percentile		25.8	
75th to 100th percentile		31.9	
Wealth/assets quartile, 2009			
0 to 25th percentile		19.1	
25th to 50th percentile		22.8	
50th to 75th percentile		27.8	
75th to 100th percentile		30.4	
Marital duration (in years)		38.5 (14.57)	
Characteristics of activities			
On the weekend (1 = yes)	31.6	34.4	.105
At home (1 = yes)	46.3	59.1	< .001
With spouse (1 = yes)	32.5	30.8	.488
Randomly selected activities yesterday (percentage participating)			
Self-maintenance	8.2	7.5	.630
Eating	11.7	10.9	.658
Working for pay	8.2	4.7	.012
Shopping for food	1.8	1.9	.899
Shopping for other goods	3.2	2.7	.578
Preparing food	2.6	12.6	< .001
Doing household chores	1.3	5.4	< .001
Doing household maintenance	7.9	6.1	.220
Managing finances	2.6	1.6	.177
Caring for others	1.3	1.7	.549
Socializing	5.5	8.2	.047
Watching TV/movies	9.9	7.6	.070
Doing other non-active leisure activities	6.8	7.0	.821

Table 1. *Continued*

Variables	Husbands (n = 361)	Wives (n = 361)	p
Doing active leisure activities	3.2	2.6	.510
Doing organizational activities	1.7	1.1	.153
Using the computer	4.5	3.4	.320
Traveling	19.8	14.7	.037

Note: We conducted *t* tests to evaluate statistically significant gender differences for continuous variables and a two-sample test of equality for categorical measures. The sample includes 361 married couples (i.e., 361 wives and 361 husbands), and reports are based on 1,920 activities for men and 1,920 activities for women.

Table 2. *Weighted Seemingly Unrelated Regression Models Predicting Life Satisfaction and Momentary Happiness, by Own and Spouse's Marital Quality Appraisals, Among Husbands and Wives in the Disability and Use of Time Supplement to the Panel Study of Income Dynamics*

Predictor	Life satisfaction (n = 361)		Momentary happy mood (n = 1,920)	
	Husbands	Wives	Husbands	Wives
Marital quality				
Actor	0.52** (0.17)	0.72*** (0.11)	0.49*** (0.10)	0.40*** (0.11)
Partner	0.22 (0.11)	0.22 (0.13)	-0.11 (0.12)	-0.01 (0.13)
Actor-specific intercept	2.64*** (0.53)	2.04*** (0.37)	3.71*** (0.42)	3.72*** (0.40)
<i>p</i>	.20 (.07)		.10 (.04)	

Note: Unless otherwise noted table values are unstandardized regression coefficients. Numbers in parentheses are standard errors.

p* < .01. *p* < .001.

accounts for the nonindependence of husbands' and wives' evaluations of well-being (Cook & Kenny, 2005). The zero-order correlations between husbands' and wives' life satisfaction and momentary happiness scores were .27 and .17, respectively. We used an adjusted Wald test to test the equality of coefficients for husbands and wives.

Respondent-level descriptive statistics and regression models for life satisfaction are weighted to take into account differential subsampling of eligible PSID couples across strata and differential nonresponse by strata. Weights for activity-level descriptive statistics and models assessing experienced happiness are further adjusted for the overrepresentation of weekend days in the original sample, differential response rates by day of the week, and the fact that activities of longer duration have a greater chance of being randomly selected for the sample of activities for which momentary happiness is assessed. Standard errors in the regression

models are adjusted for both survey design and the fact that multiple observations (e.g., activities) come from one respondent.

RESULTS

Descriptive Analyses

The data in Table 1 show that life satisfaction and experienced happiness do not differ significantly by gender. Both husbands and wives, on average, rated their general life satisfaction as 5.0 (out of 6). Men reported slightly more momentary happiness, but the gender difference only approached statistical significance (5.1 vs. 4.9, *p* = .09). Consistent with prior studies of marital quality, husbands rated their marriages slightly more positively than wives (3.3 vs. 3.1, *p* < .001). Wives were younger than husbands and less likely to report a disability (36.1% vs. 44.3%) yet also reported slightly poorer health; the latter two differences were not statistically significant. The average marital duration was

Table 3. *Weighted Seemingly Unrelated Regression Models Predicting Life Satisfaction and Momentary Happiness, by Own and Spouse's Marital Quality Appraisals and Control Variables, Among Husbands and Wives in the Disability and Use of Time Supplement to the Panel Study of Income Dynamics*

Predictor	Life satisfaction (n = 361)		Momentary happy mood (n = 1,920)	
	Husbands	Wives	Husbands	Wives
Marital quality				
Actor	0.45** (0.16)	0.67*** (0.11)	0.42*** (0.09)	0.40*** (0.10)
Partner	0.19 (0.10)	0.19 (0.11)	-0.11 (0.09)	-0.00 (0.11)
Actor characteristics				
Age				
70-79 husbands/60-69 wives	0.07 (0.15)	-0.15 (0.15)	0.22 (0.16)	0.19 (0.18)
80+ husbands /70+ wives	-0.02 (0.22)	0.18 (0.19)	0.20 (0.23)	0.22 (0.22)
Completed education (in years)	-0.06* (0.03)	-0.06* (0.02)	-0.05* (0.02)	-0.04 (0.02)
Race: Black vs. non-Black	0.49 (0.30)	0.31 (0.24)	0.49** (0.19)	0.13 (0.24)
Second or higher order marriage	-0.11 (0.15)	0.43* (0.18)	0.07 (0.14)	0.27 (0.18)
Has any children	-0.10 (0.21)	0.15 (0.14)	0.01 (0.15)	0.21 (0.16)
Has a disability	-0.21** (0.07)	-0.31 (0.16)	-0.18 (0.10)	-0.21 (0.12)
Self-rated ill health	-0.16* (0.06)	-0.19** (0.06)	-0.14** (0.05)	-0.02 (0.05)
Partner characteristics				
Age				
60-69 wives/70-79 husbands	-0.06 (0.14)	-0.05 (0.16)	0.10 (0.13)	0.40** (0.12)
80+ husbands /70+ wives	-0.18 (0.20)	-0.10 (0.22)	-0.16 (0.19)	0.30 (0.18)
Has a disability	0.00 (0.11)	0.02 (0.11)	-0.02 (0.10)	-0.26* (0.12)
Self-rated ill health	-0.04 (0.05)	-0.16** (0.04)	0.01 (0.06)	0.04 (0.05)
Couple characteristics				
Income 2008				
25th to 50th percentile	0.34* (0.15)	0.06 (0.16)	0.05 (0.14)	-0.10 (0.15)
50th to 75th percentile	-0.02 (0.19)	0.08 (0.16)	-0.08 (0.16)	-0.01 (0.16)
75th to 100th percentile	0.15 (0.16)	0.10 (0.17)	-0.17 (0.18)	-0.29 (0.17)
Wealth 2009				
2nd quartile	0.84*** (0.14)	0.08 (0.18)	0.44* (0.17)	-0.15 (0.16)
3rd quartile	0.92*** (0.12)	0.16 (0.13)	0.31 (0.18)	-0.08 (0.17)
4th quartile	0.80*** (0.13)	-0.04 (0.14)	0.23 (0.20)	0.07 (0.17)

Table 3. *Continued*

Predictor	Life satisfaction (<i>n</i> = 361)		Momentary happy mood (<i>n</i> = 1,920)	
	Husbands	Wives	Husbands	Wives
Marital duration (years)	-0.00 (0.01)	0.01 (0.01)	0.00 (0.01)	-0.00 (0.01)
Activity characteristics				
Activity done				
On the weekend (vs. weekday)			0.05 (0.07)	0.07 (0.07)
With the spouse (vs. alone or with someone else)			0.22* (0.10)	0.09 (0.09)
At home (vs. away from home)			-0.21* (0.09)	-0.08 (0.11)
Type of activity (/this activity)				
Self-maintenance			0.17 (0.19)	-0.09 (0.18)
Eating			0.11 (0.17)	0.21 (0.14)
Working for pay			-0.32 (0.19)	-0.37* (0.19)
Shopping for food			-0.59* (0.29)	-0.48 (0.31)
Shopping for other goods			-0.48* (0.23)	-0.31 (0.22)
Preparing food			0.35 (0.20)	-0.23 (0.23)
Doing household chores			-0.08 (0.24)	-0.37 (0.19)
Doing household maintenance			-0.07 (0.16)	-0.83** (0.31)
Managing finances			-0.48* (0.21)	-0.30 (0.24)
Caring for others			0.02 (0.21)	-0.01 (0.20)
Socializing			0.13 (0.16)	0.06 (0.17)
Watching TV/movies			0.00 (0.16)	-0.32 (0.17)
Doing other non-active leisure activities			0.08 (0.19)	-0.13 (0.15)
Doing active leisure activities			0.09 (0.18)	0.15 (0.19)
Doing religious organization activities			0.27 (0.15)	0.13 (0.20)
Doing other organization activities			-0.86** (0.22)	-0.75 (0.46)
Using the computer			0.03 (0.18)	-0.44 (0.24)
Traveling			Omitted	Omitted
Actor-specific intercept	3.81*** (0.62)	3.37*** (0.68)	4.66*** (0.55)	4.09*** (0.67)
ρ	.15 (.07)		.06 (.04)	

Note: Unless otherwise noted, table values are unstandardized regression coefficients. Numbers in parentheses are standard errors.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4. *Weighted Seemingly Unrelated Regression Models Predicting Life Satisfaction and Momentary Happiness, by Interaction Terms of Own and Spouse's Marital Quality, Among Husbands and Wives in the Disability and Use of Time Supplement to the Panel Study of Income Dynamics*

Predictor	Life satisfaction (n = 361)		Momentary happy mood (n = 1,920)	
	Husbands	Wives	Husbands	Wives
Marital quality				
Actor	1.75* (0.65)	1.16** (0.36)	0.73* (0.36)	-0.18 (0.48)
Partner	1.65* (0.64)	0.63* (0.28)	0.25 (0.43)	-0.52 (0.43)
Actor × Partner appraisal	-0.45* (0.19)	-0.15 (0.10)	-0.11 (0.13)	0.18 (0.15)
ρ	.14 (.07)		.06 (.04)	

Note: Models are adjusted for all covariates. Unless otherwise noted, table values are unstandardized regression coefficients. Numbers in parentheses are standard errors.

* $p < .05$. ** $p < 0.01$.

38.5 years ($SD = 14.6$), and 28% of respondents were in a remarriage.

Characteristics of diary activities are presented at the bottom of Table 1. Roughly one third of the randomly selected activities occurred on the weekend or were done with a spouse. Wives' activities were more likely than husbands' to take place at home (59% vs. 46%, $p < .001$). Consistent with literature on the gender typing of social roles, we found that husbands were more likely than wives to have been working for pay and traveling on the study day, whereas women were more likely to have prepared food, done household chores, or socialized.

Multivariate Analyses

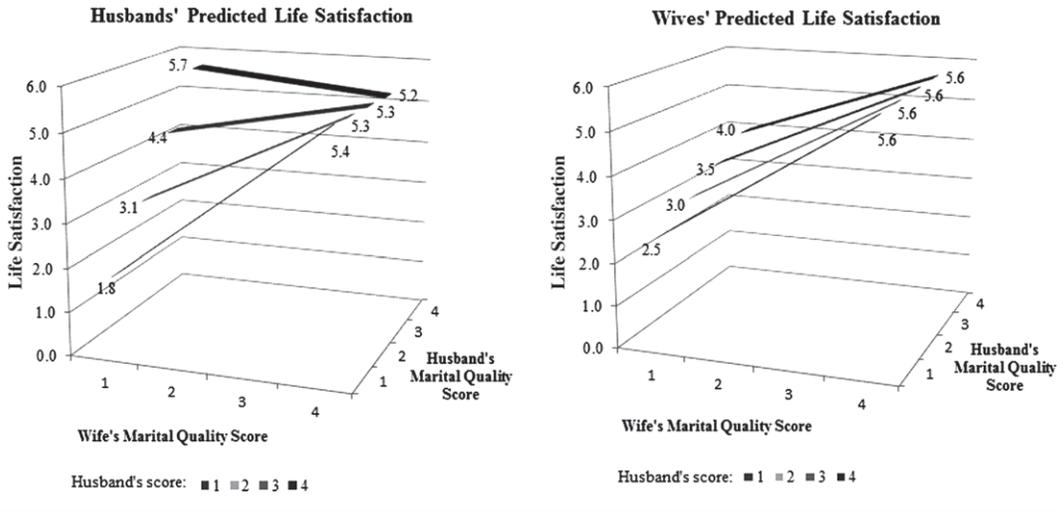
Marital quality and well-being: Unadjusted models. The unadjusted coefficients of husbands' and wives' own (actor) and spouse's (partner) marital quality appraisals on both own and spouse's well-being are displayed in Table 2. The left-hand panel of the table shows that each 1-point increase in one's own marital quality appraisal was associated with a 0.52- and 0.72-point increase in husbands' and wives' life satisfaction scores, respectively ($p < .01$). Similar patterns emerged for momentary happiness: Each 1-point increase in one's own marital quality assessment was associated with a 0.49- and 0.40-point increase in one's own happiness among husbands and wives, respectively ($p < .001$). Coefficients did not differ

significantly by gender. We found no evidence that partner appraisals were associated with own well-being. These weak associations are not likely due to multicollinearity; the zero-order correlation between spouses' marital appraisals was modest ($r = .38$).

Marital quality and well-being: Fully adjusted models. Table 3 presents coefficients for husbands' and wives' life satisfaction (left-hand panel) and momentary happiness (right-hand panel), adjusted for own and spouse's marital quality assessment and all control variables. Associations between own (actor) and spouse's (partner) marital quality assessments with well-being changed little when all control variables were adjusted. Husbands' and wives' own reports of marital quality were significantly associated with their own life satisfaction reports ($bs = 0.45$ and 0.67 , respectively, $p < .01$). Similar patterns hold for happy mood ($bs = 0.42$ and 0.40 respectively, $p < .001$). These associations are large relative to other independent variables in the models; however, they do not differ significantly by gender.

Again, we did not find significant associations between partner appraisals and own well-being. However, we found evidence of another potential partner influence: Spouse's self-rated health was inversely and significantly associated with wives' (but not husbands') life satisfaction ($b = -0.16$, $p < .01$). Wives' self-rated health was also associated with

FIGURE 1. PLOTTED INTERACTION EFFECTS: HUSBAND BY WIFE MARITAL APPRAISAL ON SUBJECTIVE WELL-BEING.



own life satisfaction ($b = -0.19, p < .01$). By contrast, husbands' self-assessed health (but not that of their wives) was associated with own life satisfaction ($b = -0.16, p < .05$, for poor health) and experienced happiness ($b = -0.14, p < .01$), and men with a disability reported lower life satisfaction ($b = -0.21, p < .01$).

Moderation analysis: Interactive effects of husbands' and wives' marital appraisals. Our final aim was to assess whether the associations between one's own marital appraisals and well-being are contingent on spouse's marital appraisals. Coefficients for main and interaction effects for husbands' and wives' marital quality assessments, adjusted for controls, are presented in Table 4. We found statistically significant interaction terms for husbands only; the association between men's own marital quality and life satisfaction was conditional on the wife's marital happiness.

For ease of interpretation, we have plotted illustrative results in Figure 1. The left panel of the figure shows that, after controlling all other covariates, husbands who rated their marital quality as very poor ($M = 1.0$) and whose wives also rated their marital quality as very poor ($M = 1.0$) reported a life satisfaction score of just 1.8 (out of 6) compared to 5.4 (a 3.6-point improvement) if their wives' marital quality score was a 4. In other words, even an unhappily married man may have his life satisfaction buoyed when his wife experiences high

marital satisfaction. By contrast, among wives who rated their marriage very poorly ($M = 1.0$), their life satisfaction score was only modestly higher when husbands' scores were 4 rather than 1 (4.0 vs. 2.5, or a 1.5-point improvement). An unhappily married woman may experience slightly elevated levels of life satisfaction when her husband is satisfied with the marriage, yet the increase is much flatter than among husbands.

Stated otherwise, among persons with very low marital quality ($M = 1.0$), husbands experienced life satisfaction increases of roughly 1.3 points with each 1-point increase in his wife's marital appraisals, whereas wives experienced comparable increases of just 0.5 points per each 1-point increase in their husbands' marital appraisals. We did not find evidence of statistically significant interaction terms for experienced happiness (see Table 4).

DISCUSSION

Our analysis is the first we know of to explore associations among own, spouse's, and combined marital quality appraisals and both general and momentary assessments of subjective well-being among a nationally representative sample of married older adults. The findings, based on a unique daily diary data set, offer several new insights into the complex associations between marital quality and two

distinct aspects of emotional well-being in later life.

Marital Quality Similarly Associated With Husbands' and Wives' Well-being

We found that marital quality was strongly associated with evaluations of one's life as a whole (as reflected in judgments of life satisfaction) and moment-to-moment experiences of happiness while performing daily activities. These associations were substantial in magnitude and persisted net of controls. To put these coefficient sizes into perspective, note that each 1-point increase on a 4-point marital quality scale was associated with a 0.45-point increase in husbands' global satisfaction and a 0.42-point increase in momentary happiness, whereas being disability free was associated with a 0.21-point boost in life satisfaction and a 0.23-point increase in momentary happy mood. The unadjusted models explained roughly five times as much of the variance in life satisfaction versus momentary happiness, whereas the fully adjusted models explained roughly twice as much of the variance in satisfaction versus daily happiness. The fully adjusted models included controls for daily activities, which may account for a sizable proportion of the variance in daily mood. Life satisfaction appears to be more responsive to traditional and enduring markers of life quality, such as marital quality, whereas measures of experienced well-being are more responsive to contemporaneous activities and circumstances (Kahneman et al., 2006).

The magnitude of the associations between marital quality and well-being did not differ significantly by gender, nor was model fit appreciably different for men and women in our fully adjusted models. These patterns are consistent with prior studies based on small nonrepresentative samples of older couples (Quirouette & Pushkar-Gold, 1992; Whisman et al., 2006) and the conclusion drawn from a recent meta-analysis (Jackson et al., 2014). Although studies based on younger samples have consistently shown stronger linkages between marital quality and global well-being for women than men (Proulx et al., 2007; Whisman et al., 2006), these analyses do not reflect distinctive aspects of older adults' social roles, relations, and psychological development.

Marriage may be equally salient to the well-being of older men and women. Both

older men's and women's future time horizons become more limited, and individuals consciously pare down their social networks to include only those to whom one is closest and those relationships deemed most important to one's overall well-being (Carstensen, 1991). Men's work-related social ties and women's rich friendship networks may diminish in number, whether by one's own choice or the structural realities of retirement; death; and the onset of significant others' aging-related challenges, including illness and caregiving (Dykstra & Gierveld, 2004; Kulik, 2002). As such, spouses may grow increasingly and equally reliant on one another for both their overall and daily well-being (Lang, 2001).

Second, as gender roles and relations shift over the life course the daily nature of marriage and its implications for men's and women's well-being may converge. When men retire and older women's responsibility for minor children subside, spouses typically experience and report greater role equity (Hagedoorn et al., 2006; Kulik, 2002). Older men may become more oriented toward family and affiliation and less oriented toward power and agency. Older women, by contrast, may place an increased emphasis on agency and self-fulfillment, and their identities and overall well-being become less closely tied to their relationships with others (James, Lewkowicz, Libhaber, & Lachman, 1995). The relative importance of marriage to women's well-being may decline, whereas its importance to men's well-being may increase, leading to a convergence by later life.

Limited Evidence for Partner Effects

We did not find significant associations between older adults' well-being and their spouses' marital quality assessment. This pattern does not appear to reflect multicollinearity, because the zero-order correlation between the two spouses' marital assessments was just .38. We expected to find evidence of partner effects, given prior writings suggesting that spouses who are dissatisfied with their marriage may treat their partner poorly by either instigating conflict or withdrawing emotional support (Whisman et al., 2004). These acts may in turn have direct implications for the partner's well-being. However, older adults may not act on their negative feelings toward their spouse, thus weakening the potential linkage between one spouse's

marital satisfaction and the other spouse's emotional well-being. Older adults are more likely than younger adults to forgive their social partners or overlook their transgressions (Allemand, 2008), or they may ignore problems with their significant others because the relationship is an important (or even sole) source of emotional closeness and intimacy (Luong, Charles, & Fingerma, 2011).

Although we did not find evidence of partner effects related to marital appraisals, we did find that spouse's health affected the life satisfaction of women only. This finding is consistent with a vast literature documenting that women are more likely than men to act as a caregiver to their spouse. Women help maintain their husband's health by providing healthy meals and encouraging healthy behaviors, including compliance with physicians' recommendations (Umberson et al., 2006). Wives also tend to provide direct physical care to their unhealthy husbands; wife caregivers perform a greater number and range of tasks and provide more hours of caregiving than do husband caregivers (Pinquart & Sorensen, 2006). This caregiving may in turn tax women's emotional well-being (Kaufman & Taniguchi, 2006). Our results contribute to a mounting literature showing that husband's health contributes to a range of wife outcomes, including her perceptions of marital conflict (Iveniuk, Waite, Laumann, McClintock, & Tiedt, 2014), although wives' health does not have comparable effects on husband well-being.

Men's Satisfaction and Multiplicative Marital Quality Effects

Finally, we found that the strength of association between a man's marital quality assessment and his life satisfaction is contingent on his wife's marital appraisals. A man who views his marriage very unfavorably may still enjoy relatively high levels of life satisfaction if his wife views the marriage favorably. However, a similarly pronounced pattern did not emerge among women. These patterns may reflect gendered interactions and communication within marriage. Women typically provide more health-enhancing support to husbands than vice versa, and women's provision of effective emotional and practical spousal support is linked to their own levels of marital happiness (Williamson & Schaffer, 2001). A happily married woman may be highly motivated to

provide care and practical support to her spouse, such that even an unhappily married man may receive practical benefits that enhance his overall well-being. Moreover, women are more likely to try to engage partners in marital issues, whether a happily married woman is praising positive aspects or an unhappily married woman is criticizing her husband. By contrast, men tend to take a more passive or silent approach, whereby their feelings toward the marriage may not be conveyed to their spouse. Given men's more passive style of marital interaction, their marital unhappiness may not compound their wives' marital dissatisfaction to affect her overall well-being (Heavey et al., 1993).

Our results may also reflect gender differences in the bases of one's marital quality appraisals. Recent research shows that older husbands' marital appraisals depend heavily on what men feel their wives do for them (e.g., "She makes me feel loved and supported"), whereas older wives' marital satisfaction is based largely on what she feels she does for her husband (e.g., "I make him feel loved and supported"; Boerner, Jopp, Carr, Sosinsky, & Kim, 2014). In other words, both men's and women's evaluations of marital quality are shaped by the perceived benefits for the husband. Thus, a couple in which both report high satisfaction may be one in which the wife gives a lot and the husband feels he receives a lot, thus enhancing his life satisfaction.

Limitations

The DUST provides a unique opportunity to assess how assessments of marital quality matter for both partners' subjective well-being, including both general and momentary measures. However, our study has several limitations. First, although DUST is embedded in a longitudinal panel, it is cross-sectional, and we therefore cannot ascertain causal ordering. It is plausible that one's psychological well-being may bias both own and spouse's marital appraisals. People evaluate their circumstances more positively when they are in a happy rather than sad mood. Similarly, persons with high levels of negative affect tend to offer more negative accounts of their marriages and are more likely to recall negative information about past experiences (Teasdale, Taylor, & Fogarty, 1980). Unhappy persons also are less capable of providing their spouses the love and support they desire, or they

may instigate frequent marital conflicts (Iveniuk et al., 2014). Our concerns are partly allayed by a recent meta-analysis showing that the association between marital quality and well-being was stronger when well-being was the dependent variable (Proulx et al., 2007). Furthermore, the associations we detected between marital quality and well-being were comparable for both well-being measures despite their distinctive properties: Life satisfaction is evaluative, whereas momentary well-being may change often and in response to one's immediate social context (George, 2010; Kahneman et al., 2006). To further explore these issues, we conducted supplementary analyses in which we reestimated all models using measures of negative aspects of momentary mood, including feeling sad, worried, and frustrated. The results were virtually identical to those presented here, in which negative moods were inversely related to own but not spouse's marital quality reports.

Second, the DUST does not measure personality traits, such as neuroticism or agreeableness (Whisman et al., 2006). Such measures are potentially important contributors to both marital quality and subjective well-being (Iveniuk et al., 2014) and would enable a fuller assessment of whether individuals have a "set point," or relatively stable level of happiness as a function of enduring traits (Diener, Lucas, & Scollon, 2006). Although we could not directly explore personality's influence on life satisfaction, momentary well-being models were estimated with a parameter to capture unmeasured attributes of respondents, suggesting that personality alone is unlikely to account for the marital quality-experienced happiness relationship.

Third, we focused on marital quality as a predictor of well-being but did not consider the extent to which marital quality (his, hers, or both) buffer against the effect of other late-life stressors, such as caregiving or functional impairment. Finally, given the cross-sectional design of the DUST, we could not assess the role of social selection. If marriages that are appraised highly are more likely to remain intact and are more likely to enhance subjective well-being, selectivity into long-term marriages may overstate these relationships. Future waves of the DUST may allow fuller exploration of these issues.

Despite these limitations, our study reveals the important and complex role that marital appraisals play in the lives of older adults.

Marital quality is an important factor shaping both global well-being (happy lives) and experienced well-being (happy days). For husbands, in particular, life satisfaction is enhanced by wives' marital happiness, even among men who view their marriages unfavorably. Taken together, our results suggest that future research on marriage and well-being in later life should consider both spouses' perspectives on marital quality and should explore how these perspectives are linked to specific behaviors, such as spousal caregiving, that may enhance the other partner's well-being.

NOTE

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